9-2013

Stupid Doctors and Smart Construction Workers: Perspective-taking Reduces Stereotyping of Both Negative and Positive Targets

Cynthia S. Wang
Oklahoma State University

Gillian Ku
London Business School

Kenneth Tai
Singapore Management University, kennethtai@smu.edu.sg

Adam D. Galinsky
Columbia University

Stupid Doctors and Smart Construction Workers:

Perspective-taking Reduces Stereotyping of Both Negative and Positive Targets

Cynthia S. Wang
Oklahoma State University

Gillian Ku
London Business School

Kenneth Tai
Singapore Management University

Adam D. Galinsky
Columbia University

In press at Social Psychological and Personality Science

Address all correspondence to:
Cynthia S. Wang
Department of Management
319 Business Building
Spears School of Business
Oklahoma State University
Stillwater, Oklahoma 74078-4011 USA
Email: cynthia.wang@okstate.edu
Phone: 312-718-0897

Abstract

Numerous studies have found that perspective-taking reduces stereotyping and prejudice, but they have only involved negative stereotypes. Because target negativity has been empirically confounded with reduced stereotyping, the general effects of perspective-taking on stereotyping and prejudice are unclear. By including both positively- and negatively-stereotyped targets, this research offers the first empirical test of two competing hypotheses: The *positivity hypothesis* predicts that perspective-taking produces a positivity bias, with less stereotyping of negative targets but *more* stereotyping of positive targets. In contrast, the *stereotype-reduction hypothesis* predicts that perspective-taking reduces stereotyping, regardless of target valence. Three studies support the stereotype-reduction hypothesis. Perspective-taking also produced *less* positive attitudes towards positive targets, with reduced stereotyping mediating this effect. A final study demonstrated that perspective-taking reduced all stereotyping because it increased self-other overlap. These findings help answer fundamental questions about perspective-taking's effects and processes, and provide evidence that perspective-taking does not improve attitudes invariantly.

Social theorists have long identified perspective-taking and theory-of-mind capacities as critical for navigating one's social world (Mead, 1934; Piaget, 1932; Smith, 1759). Perspective-taking, or understanding the world from another's vantage point, has been linked to the development of cognitive (Piaget, 1932) and moral reasoning (Selman, 1980), as well as to altruism (Batson, 1991), cooperation (Batson & Moran, 1999), and conflict resolution (Galinsky, Maddux, Gilin, & White, 2008). In contrast, deficiencies in perspective-taking contribute to social dysfunction (Baron-Cohen, 1995) and aggressive retaliation (Richardson, Hammock, Smith, Gardner, & Signo, 1994).

Perspective-taking has also been recognized as a method for improving intergroup relations (Galinsky, Ku, & Wang, 2005). Perspective-taking consistently decreases stereotyping and prejudice (Batson et al., 1997; Galinsky & Ku, 2004; Galinsky & Moskowitz, 2000; Ku, Wang, & Galinsky, 2010; Todd, Bodenhausen, Richeson, & Galinsky, 2011; Vescio, Sechrist, & Paolucci, 2003) and helps to smooth the cogs of interracial interaction (Todd et al., 2011).

Prior research on perspective-taking's effects on stereotyping and prejudice has only examined negative targets, group members stereotypically defined by negative traits. Because stereotyping and target valence have been confounded empirically, a fundamental unanswered question is whether perspective-taking (a) produces a positivity bias (i.e., less stereotyping of negative targets but *more* stereotyping of positive targets) or (b) reduces stereotyping more broadly (i.e., perspective-takers see positive and negative targets as less stereotypical). By examining how perspective-taking affects the stereotyping of *both* positive and negative targets, we present the first empirical test of whether perspective-taking increases positivity or reduces stereotyping. In doing so, we shed light on fundamental questions around perspective-taking's effects, mechanism, and effectiveness in improving intergroup conflict.

The Positivity Hypothesis

Perspective-taking has been found to be a key driver of building and maintaining social bonds (Galinsky et al., 2005). For example, perspective-taking increases empathy (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997), leads to approach (Myers & Hodges, 2011; Todd et al., 2011), increases satisfaction (Blatt, LeLacheur, Galinsky, Simmens, & Greenberg, 2010; Galinsky et al., 2008), and facilitates social coordination (Galinsky, Wang, & Ku, 2008; Laurent & Myers, 2011). Perspective-taking also reduces stereotyping and improves intergroup attitudes (Batson et al., 1997; Galinsky & Ku, 2004; Ku et al., 2010; Todd et al., 2011; Vescio et al., 2003). Given these diverse benefits, Galinsky et al. (2005) suggested that perspective-taking is geared towards creating and maintaining social bonds. Building off this conceptual model and past research, one could conclude that perspective-taking produces an overall positivity effect, with perspective-taking consistently decreasing stereotyping.

However, this conclusion is premature because existing tests of perspective-taking's effects on stereotyping and prejudice have only involved negative targets. The positivity hypothesis predicts that perspective-taking will result in *more* stereotyping of and more positive attitudes toward positive targets. Together then, the *positivity hypothesis* suggests that perspective-takers will see negative targets less stereotypically but positive targets more stereotypically, both of which will result in more positive attitudes.

The Stereotype-Reduction Hypothesis

Considering perspective-taking's mechanism – self-anchoring – offers insight into why perspective-taking may decrease stereotyping regardless of target valence. During perspective-taking, the self is applied to the target, causing the target to become more "self-like" (Davis, Conklin, Smith, & Luce, 1996; Galinsky et al., 2005; Todd & Burgmer, 2013).

Past research has found that this self-anchoring process leads perspective-takers to decrease their stereotyping of negative targets (Galinsky & Moskowitz, 2000). Because individuals generally view themselves positively (Miller & Ross, 1975; Taylor & Brown, 1988), perspective-takers predominantly apply positive self-descriptors to a negative target, thereby decreasing stereotyping of and prejudice towards that target and their group (Galinsky & Moskowitz, 2000). This suggests that reduced stereotyping of negative targets requires a positive self-concept. Consistent with this argument, Galinsky and Ku (2004) found that perspective-takers' judgments of negative targets did not improve when perspective-takers had temporarily or chronically low self-esteem (see also Todd and Burgmer, 2013, for a replication using implicit measures).

Perspective-taking's self-anchoring processes may explain why perspective-taking will reduce all stereotyping. Because self-descriptors are applied to the target during perspective-taking and because a group's stereotype is likely to be more extreme (more positive or negative) than one's self, negative targets become less negative (as previously demonstrated), but positive targets should become less positive – self-anchoring processes will result in less positive self-descriptors being applied to the positive target. Overall, the *stereotype-reduction hypothesis* predicts that perspective-taking will reduce stereotyping of both negative and positive targets, resulting in more positive attitudes towards negative targets, but less positive attitudes towards positive targets.

Overview

To examine whether perspective-taking has a positivity effect or reduces stereotyping more generally, we considered both positive and negative targets to directly test two competing hypotheses: If perspective-taking has a positivity effect, perspective-takers will stereotype

negative targets less, stereotype positive targets more, and exhibit more favorable attitudes towards both. However, if perspective-taking has a stereotype-reduction effect, perspective-taking will decrease stereotyping of both negative and positive targets, with the ironic effect of improving attitudes towards negative targets but deteriorating attitudes towards positive targets.

Study 1: Stereotype Reduction

Study 1 examined the competing hypotheses of increased positivity vs. stereotype-reduction using a positive (doctor) and negative (laborer) target.[1] We chose these two groups because, as our pretest will show, a number of traits are stereotypical of doctors but counter-stereotypical of laborers (e.g., doctors are viewed as smart but laborers as unintelligent).

Study 1 used an individual difference measure of perspective-taking tendencies. Both competing hypotheses predict that perspective-takers will see laborers as smarter. However, whereas the positivity hypothesis predicts a positive relationship between perspective-taking tendencies and judging the doctor as smarter, the stereotype-reduction hypothesis predicts a negative relationship (i.e., the doctor will be judged as less smart).

Study 1 also compared perspective-taking to empathic concern because these two constructs are often studied together (e.g., Chartrand & Bargh, 1999; Davis, 1980; Galinsky et al., 2008) and fall under an umbrella construct of interpersonal concern (Davis, 1980). Since there is evidence that the effects of perspective-taking on intergroup attitudes are partially mediated by empathy (Vescio et al., 2003), it is important to show that perspective-taking has effects above and beyond empathy.

Other research has found that perspective-taking and empathy have differential effects in interpersonal interactions. For instance, individual differences in perspective-taking tendencies are better predictors of interpersonal behaviors such as mimicking and negotiation behavior than

are individual differences in empathic concern (Chartrand & Bargh, 1999; Galinsky et al., 2008). Most germane to our current investigation, both perspective-taking and empathy result in increased self-other overlap (Batson et al., 1997; Galinsky et al., 2008), but more so for perspective-taking than for empathy (Batson et al., 1997). Given that self-other overlap is a central mechanism in perspective-taking induced stereotype reduction, we expected perspective-taking to matter more than empathy if the stereotype-reduction hypothesis is correct.

Method

Pretest. To pretest positive traits that are stereotypic of doctors but counterstereotypic of laborers, 30 participants were randomly assigned to consider doctors or laborers and rated whether a number of traits were typical of that group (7-point scales). We selected traits as stereotypical if they were rated significantly above the scale's midpoint and counterstereotypical if they were significantly below the midpoint (Galinsky et al., 2008). Additionally, participants rated the valence of the traits (5-point scales). Traits were considered positive (or negative) if they were rated significantly above (or below) the scale's midpoint. Participants also indicated how favorable society's view is of doctors or laborers (7-point scales). Targets were considered positive (or negative) if they were rated significantly above (or below) the scale's midpoint.

Doctors were seen as stereotypically analytical, passionate, smart, and thoughtful, $t(14)$'s > 3.86, p's $< .003$, but laborers stereotypically lacked these traits, $t(14)$'s > 2.45, p's $< .03$. These traits were seen as positive, $t(29)$'s > 8.84, p's $< .001$. Finally, doctors were viewed positively, $t(14) = 9.37$, $p < .001$, whereas laborers were viewed negatively, $t(14) = 6.21$, $p < .001$.

Participants and design. Fifty-three Singaporean undergraduates (24 women, 19 men, 10 unreported) were randomly assigned to a doctor or laborer target condition.[2] We measured participants' perspective-taking and empathic tendencies.

Procedure. Using Mazzocco, Rucker, Galinsky, and Anderson's (2012) paradigm, participants were told that they would receive a randomly chosen set of demographic details (age, occupation, etc.) and would write about a day in the life of that person. Participants received identical demographic information between conditions except for the target's occupation, which was either a doctor or laborer. Participants were asked to write in the third-person (using "he", "she", "they") to capture how natural variations in perspective-taking tendencies relate to stereotyping (see Galinsky et al., 2008).

Trait ratings. After a filler task, participants rated how well the four pretested traits (analytical, passionate, smart, and thoughtful) described doctors or laborers (α = .87, 7-point scales).

Perspective-taking and empathic tendencies. Participants then completed two subscales from Davis' (1980) Interpersonal Reactivity Index (5-point scales): the 7-item perspective-taking subscale (e.g., "I sometimes try to understand my friends better by imagining how things look from their perspective," α = .52) and the 6-item empathy subscale (e.g., "Often have tender, concerned feelings for people less fortunate than me," α = .66).

Results

The positivity hypothesis predicts that both doctors and laborers will be seen as analytical, etc., resulting in a positive relationship between perspective-taking tendencies and trait ratings that is not moderated by target. The stereotype-reduction hypothesis predicts an interaction: a positive relationship between perspective-taking tendencies and trait ratings for laborers, but a negative relationship for doctors.

To test our model, we used a stepwise regression procedure with perspective-taking tendencies (mean-centered), empathic tendencies (mean-centered), and target as independent

variables. On the first step, we entered the main effects. There was a significant effect of target, $b = 2.14$, $SE = .22$, $t(52) = 9.66$, $p < .001$, with doctors seen as more analytical, etc. than laborers. The other main effects were not significant, $t(52)$'s $< .53$, p's $> .60$. On the second step, we entered the two-way interactions. Only the perspective-taking tendencies X target interaction was significant, $b = -1.64$, $SE = .51$, $t(52) = -3.20$, $p = .002$. The other two-way interactions were not significant, $t(52)$'s $< .92$, p's $> .36$. On the third step, we entered the three-way interaction, which was not significant, $t(52) = -.82$, $p = .42$.

In deconstructing the perspective-taking tendencies X target interaction, simple slope analyses revealed that participants with greater perspective-taking tendencies viewed the laborer as more analytical, passionate, smart, and thoughtful, $b = .95$, $SE = .36$, $t(52) = 2.64$, $p = .01$, but viewed the doctor as marginally less analytical, passionate, smart, and thoughtful, $b = -.69$, $SE = .36$, $t(52) = -1.91$, $p = .06$ (see Figure 1).

The results supported the stereotype-reduction hypothesis: Perspective-taking tendencies reduced stereotyping of both negative and positive targets. Additionally, these effects were unique to perspective-taking and not empathic concern, providing further evidence that they have different effects (e.g., Chartrand & Bargh, 1999; Galinsky et al., 2008). The fact that perspective-taking matters more than empathy also supports our hypothesis that self-other overlap and self-anchoring are key processes in driving perspective-taking effects (Batson et al., 1997; Galinsky et al., 2005).

Despite the insights that Study 1 provide, the correlational design makes reverse causality a potential problem. As such, Studies 2 and 3 rely on manipulations of perspective-taking to establish a causal link between perspective-taking and reduced stereotyping.

Study 2: Attitudinal Consequences of Reduced Stereotyping of a Positive Target

If perspective-taking has a positivity effect, perspective-takers should have more favorable attitudes towards both negative and positive targets. However, consistent with Study 1 and the stereotype-reduction hypothesis, perspective-taking may ironically result in *less* favorable attitudes towards positive targets because of reduced stereotyping. Using the positive target of engineers, Study 2 tested whether perspective-taking would reduce stereotyping, which would then result in less positive attitudes towards that target group.

Method

Pretest. A pretest established that engineers were seen as stereotypically hardworking, intelligent, and logical, $t(17)$'s > 2.96, p's≤ .01. These traits were seen as positive, $t(17)$'s > 3.52, p's≤.001. Additionally, engineers were seen as positive targets, $t(17) = 4.57$, $p < .001$.

Participants and design. Forty-seven individuals (30 women, 17 men) recruited through a European behavioral laboratory were randomly assigned to a perspective-taking vs. a control condition.

Procedure. As in Study 1, participants were given demographic details of a target person (an engineer) and asked to write about this target.

Perspective-taking manipulation. Participants in the *control* condition wrote about the target in the third-person whereas those in the *perspective-taking* condition wrote in first-person (using "I" or "we") (Mazzocco et al., 2012).

Trait ratings. After a filler task, participants rated how well the traits hardworking, intelligent, and logical described engineers in general (α = .81, 7-point scales).

***Attitudes*.** Using a feelings thermometer (Dasgupta & Greenwald, 2001; Hugenberg & Bodenhausen, 2004), participants were presented with an image of a thermometer and indicated

their attitudes towards engineers, with higher ratings indicating more positive attitudes (10-point scale).

Results

Trait ratings. Perspective-takers (M = 5.31, SD = .91) viewed engineers as less hardworking, intelligent, and logical than control participants (M = 6.28, SD = .62), $t(45) = 4.26$, $p < .001$, $d = 1.24$.

Attitudes. Perspective-takers (M = 6.33, SD = 1.40) felt less positively towards engineers than control participants (M = 7.43, SD = 1.67), $t(45) = 2.45$, $p = .02$, $d = .72$.

We tested if stereotyping mediated the effects of perspective-taking on attitudes by simultaneously regressing attitudes on perspective-taking and trait ratings. Trait ratings predicted attitudes (b = .72, SE = .28, p = .01) and perspective-taking was no longer significant (b = -.40, SE = .50, p = .43; see Figure 2); a 5,000 samples bootstrap procedure yielded a 95% bias-corrected interval of {-1.35, -.15}.

Thus, Study 2 found that perspective-takers viewed engineers less stereotypically, which resulted in less positive attitudes towards them. Although these findings are consistent with the stereotype-reduction hypothesis, we should caution that the effect of perspective-taking on attitudes could have been inflated because participants filled out the traits ratings just before the attitudes measure. Overall, Study 2 replicated Study 1's effects and provides causal confirmation that perspective-taking reduces stereotyping.

Study 3: Perspective-Taking's Self-Anchoring Processes Drive Stereotype-Reduction

We have suggested that perspective-taking's self-anchoring processes explains why perspective-taking reduces all stereotyping. Because perspective-taking involves self-descriptors

being applied to the target and because a group's stereotype is often more extreme than one's self, perspective-taking renders negative targets less negative but positive targets less positive.

In support of perspective-taking's self-anchoring processes, Galinsky and Ku (2004) and Todd and Burgmer (2013) found that perspective-taking only decreased prejudice towards negative targets when perspective-takers had high self-esteem. Extending this logic, Study 3 manipulated target valence and perspective-taking, and measured self-esteem. We expected perspective-takers to stereotype negative targets less than control participants, but only when they had high self-esteem (a conceptual replication of Galinsky & Ku, 2004 and Todd & Burgmer, 2013). We predicted a novel effect for positive targets: perspective-takers would stereotype positive targets less than control participants, but only when they had *low* self-esteem. Low self-esteem would lead participants to apply negative self-descriptors to the positive target, which would reduce the perception of positive stereotypic traits.

Method

Participants and design. Ninety-six participants (52 women, 44 men) were recruited via Amazon's MTurk. The study had a 2(condition: perspective-taking vs. control) X 2(target: doctor vs. construction worker) between-participants design. Additionally, we measured self-esteem.

Manipulations. Participants wrote an essay about a day in the life of either a doctor or a construction worker (i.e., Study 1's targets), using either the first-person (perspective-taking condition) or third-person (control condition).

Trait ratings. After a filler task, participants rated how well the four traits from Study 1 – analytical, passionate, smart, and thoughtful – described doctors or construction workers (α = .75).

Self-esteem. Finally, participants completed Rosenberg's (1965) 10-item trait self-esteem scale (e.g., "I take a positive attitude toward myself," $\alpha = .93$, 4-point scales).

Results

A 2(condition) X 2(target) analysis of variance revealed a significant interaction, $F(92) = 7.14$, $p = .009$. Perspective-takers ($M = 4.18$, $SD = .83$) viewed laborers as more analytical, passionate, smart, and thoughtful than control participants ($M = 3.70$, $SD = .88$), $t(92) = 2.05$, $p = .04$, $d = .57$. However, perspective-takers ($M = 5.39$, $SD = .91$) viewed the doctor as marginally *less* stereotypical than control participants ($M = 5.80$, $SD = .65$), $t(92) = 1.73$, $p = .09$, $d = .52$.

Importantly, a regression revealed a significant condition X target X self-esteem interaction, $b = 1.13$, $SE = .55$, $t(90) = 2.04$, $p = .04$. We looked at the conditional effects of perspective-taking on trait ratings (Hayes, 2012; see Figures 3A and 3B). When self-esteem was high (*+1SD* above the mean), perspective-takers judged construction workers more positively than control participants, $b = .88$, $SE = .29$, $t(88) = 3.05$, $p = .003$, but not when the target was a doctor, $b = .05$, $SE = .28$, $t(88) = .19$, $p = .85$. However, when self-esteem was low (*-1SD* below the mean), perspective-takers judged doctors *less* positively than control participants, $b = .85$, $SE = .29$, $t(88) = 2.90$, $p = .005$, but not when the target was a construction worker, $B = .09$, $SE = .29$, $t(88) = .30$, $p = .77$. These findings support our stereotype-reduction hypothesis and perspective-taking's self-anchoring processes.

General Discussion

Past studies have found that perspective-taking reduces stereotyping and improves attitudes, but these studies have all involved negative targets. By empirically disentangling stereotyping from target negativity, the current research examined whether perspective-taking results in a positivity bias or reduces stereotyping more broadly. Using both negative and

positive targets, and both measures and manipulations of perspective-taking, we found support for the stereotype-reduction hypothesis. Studies 1 and 3 demonstrated that perspective-taking reduces stereotyping, regardless of target valence. Study 2 found that reduced stereotyping mediated perspective-taking's effects on poorer attitudes towards positive targets. Finally, Study 3 found that perspective-taking's effects on reducing stereotyping depends on the perspective-taker's self-esteem, thereby providing further evidence of perspective-taking's self-anchoring mechanism.

The current findings contribute to the literature by examining a factor – positive targets – completely missing from prior research. In doing so, we provide concrete evidence for the cognitive process of self-anchoring as perspective-taking's central mechanism in stereotype reduction. Because perspective-takers apply self-descriptors to the target and the target group, when a group's stereotypes are more positive than the self, this self-anchoring can ironically result in less positive views towards that group (i.e., dumber doctors and less positive attitudes towards them).

It is worth acknowledging, however, that the current studies focused on positive targets who are primarily high on competence-related traits (e.g., analytical, hardworking) rather than warmth-related traits (e.g., sociable, good-natured). As such, a question for future research is whether our stereotype-reduction hypothesis holds for stereotypically-warm targets (e.g., would perspective-takers see nurses as less nurturing?). More generally, to understand whether perspective-taking will result in less stereotyping of positive targets, one needs to know the discrepancy between the positivity of a particular individual's self-evaluations and the positivity of the stereotype.

Consistent with Galinsky et al.'s (2005) theorizing, our findings add to a growing line of research demonstrating that perspective-taking is not a panacea for reducing all social bias. For instance, in competitive contexts, perspective-takers behave more egoistically by taking more resources (Epley, Caruso, & Bazerman, 2006) and act more unethically (Pierce, Kilduff, Galinsky, & Sivanathan, in press). Perspective-takers are also more likely to stereotype clearly stereotype-consistent outgroup members (Skorinko & Sinclair, 2013). Furthermore, for individuals highly identified with their in-group, perspective-taking can increase stereotyping and prejudice (Tarrant, Calitri, & Weston, 2012). The current research similarly points to a dark side to perspective-taking: more negative attitudes towards positive targets when perspective-takers have low self-esteem. Indeed, our findings and recent research suggests that perspective-taking is most effective at reducing stereotyping and prejudice when perspective-takers have chronically- or temporarily-elevated self-esteem (Galinsky & Ku, 2004; Todd & Burgmer, 2013).

Conclusion

By finding that perspective-takers see doctors as less analytical, passionate, smart, and thoughtful, the current research supports the stereotype-reduction hypothesis and confirms perspective-taking's self-anchoring processes in a novel context. In so doing, it presents some cautionary tales for perspective-taking's effectiveness as a social strategy while also opening up new avenues of research on perspective-taking that focus on positively-stereotyped targets.

References

Baron-Cohen, S. (1995). *Mindblindness: An essay on autism and theory of mind.* Boston, MA: MIT Press/Bradford Books.

Batson, C. (1991). *The altruism question: towards a social-psychological answer*. Hillsdale, NJ: Erlbaum.

Batson, C. D., & Moran, T. (1999). Empathy-induced altruism in a prisoner's dilemma. *European Journal of Social Psychology, 29*, 909–924.

Batson, D. C., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H., Mitchener, E. C., Bednar, L. L., Klein, T. R., & Highberger, L. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings towards the group. *Journal of Personality and Social Psychology, 72*, 105-118.

Blatt, B., LeLacheur, S. F., Galinsky, A. D., Simmens, S. J., & Greenberg, L. (2010). Does perspective-taking increase patient satisfaction in medical encounters? *Academic Medicine, 85*, 1445-1452.

Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: The perception-behavior link and social interaction. *Journal of Personality and Social Psychology, 76*, 893–910.

Cialdini, R. B., Brown, S. L., Lewis, B. P., Luce, C., & Neuberg, S. L. (1997). Reinterpreting the empathy-altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology, 73*, 481-494.

Dasgupta, N., & Greenwald, A. G. (2001). On the malleability of automatic attitudes: Combating automatic prejudice with images of admired and disliked individuals. *Journal of Personality and Social Psychology, 81*, 800-814.

Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *Catalog of Selected Documents in Psychology, 10,* 85.

Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effect of perspective-taking on the cognitive representation of persons: A merging of self and other. *Journal of Personality and Social Psychology, 70,* 713-726.

Epley, N., Caruso, E. M., & Bazerman, M. H. (2006). When perspective-taking increases taking: Reactive egoism in social interaction. *Journal of Personality and Social Psychology, 91,* 872-889.

Galinsky, A. D., & Ku, G. (2004). The effects of perspective-taking on prejudice: The moderating role of self-evaluation. *Personality and Social Psychology Bulletin, 30,* 594-604.

Galinsky, A. D., Ku, G., & Wang, C. S. (2005). Perspective-taking and self-other overlap: Fostering social bonds and facilitating social coordination. *Group Processes and Intergroup Relations, 8,* 109-124.

Galinsky, A. D., Maddux, W. W., Gilin, D., & White, J. B. (2008). Why it pays to get inside the head of your opponent: The differential effects of perspective-taking and empathy in strategic interactions. *Psychological Science, 19,* 378–384.

Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology, 78,* 708-724.

Galinsky, A.D., & Moskowitz, G. B. (2007). Further ironies of suppression: Stereotype and counter-stereotype accessibility. *Journal of Experimental Social Psychology, 42,* 833-841.

Galinsky, A. D., Wang, C. S., & Ku, G. (2008). Perspective-takers behave more stereotypically. *Journal of Personality and Social Psychology, 95*, 404-419.

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.afhayes.com/public/process2012.pdf

Hugenberg, K., & Bodenhausen, G. V. (2004). Ambiguity in social categorizations: The role of prejudice and facial affect in race categorization. *Psychological Science, 15,* 342-345.

Ku, G., Wang, C. S., & Galinsky, A. D. (2010). Perception through a perspective-taking lens: Differential effects on judgment and behavior. *Journal of Experimental Social Psychology, 46,* 792-798.

Laurent, S. M., & Myers, M. W. (2011). I know you're me, but who am I? Perspective taking and seeing the other in the self. *Journal of Experimental Social Psychology, 47*, 1316-1319.

Mazzocco, P. J., Rucker, D. D., Galinsky, A. D., & Anderson, E. T. (2012). Direct and vicarious conspicuous consumption: Identification with low-status goods increases the desire for high-status goods. *Journal of Consumer Psychology, 22,* 520-528.

Mead, G. H. (1934). *Mind, self and society*. Chicago, IL: Chicago University Press.

Miller, D. T., & Ross, M. (1975). Self-serving biases in the attribution of causality: Fact or fiction? *Psychological Bulletin, 82,* 213-225.

Myers, M. W., & Hodges, S. D. (2011). The structure of self-other overlap and its relationship to perspective taking. *Personal Relationships, 19,* 663-679.

Piaget, J. (1932). *The moral judgment of the child.* London: Kegan Paul.

Pierce, J. R., Kilduff, G. J., Galinsky, A. D., & Sivanathan, N. (in press). From glue to gasoline: How competition turns perspective-takers unethical. *Psychological Science.*

Richardson, R., Hammock, G. S., Smith, S. M., Gardner, W., & Signo, M. (1994). Empathy as a cognitive inhibitor of interpersonal aggression. *Aggressive Behavior, 20,* 275–289.

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press.

Selman, R. L. (1980). *The growth of interpersonal understanding*. New York: Academic Press.

Skorinko, J. L. & Sinclair, S. A. (2013). Perspective taking can increase stereotyping: The role of apparent stereotype confirmation. *Journal of Experimental Social Psychology, 49,* 10-18.

Smith, A. (1759). *The theory of moral sentiments*. Indianapolis, IN: Liberty Press.

Tarrant, M., Calitri, R., & Weston, D. (2012). Social identification structures the effects of perspective taking. *Psychological Science, 23,* 973-978.

Taylor, S. E. & Brown, J. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103,* 193–210.

Todd, A. R., Bodenhausen, G. V., Richeson, J. A., & Galinsky, A. D. (2011). Perspective taking combats automatic expressions of racial bias. *Journal of Personality and Social Psychology, 100,* 1027-1042.

Todd, A. R., & Burgmer, P. (2013). Perspective taking and automatic intergroup evaluation change: Testing an associative self-anchoring account. *Journal of Personality and Social Psychology, 104,* 786-802.

Vescio, T. K., Sechrist, G. B., & Paolucci, M. P. (2003). Perspective-taking and prejudice reduction: The meditational role of empathy arousal and situational attributions. *European Journal of Social Psychology, 33,* 455-472.

Figure 1. Interaction effect of perspective-taking tendencies and target on trait ratings in Study 1. High and low levels of perspective-taking tendencies represent one standard deviation above and below the mean respectively.

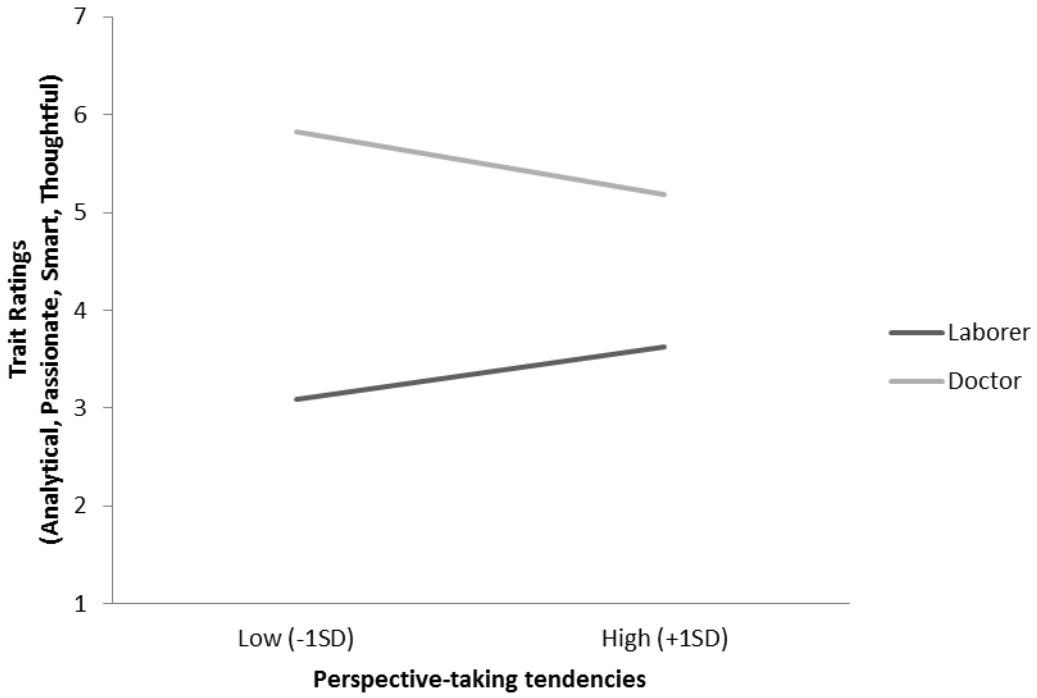
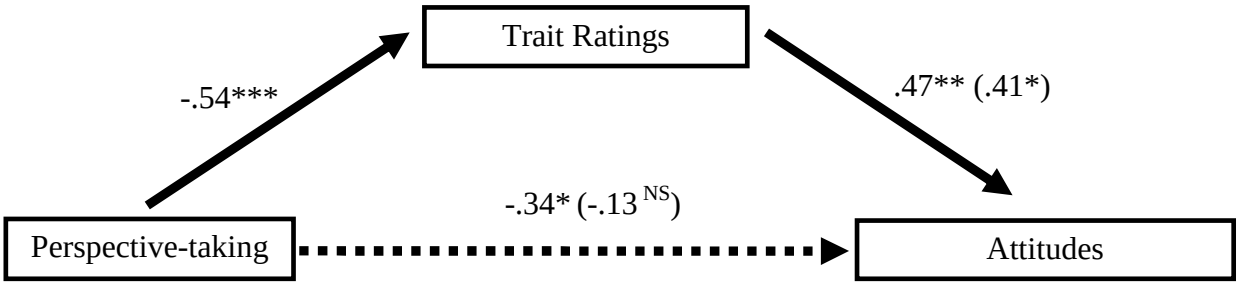
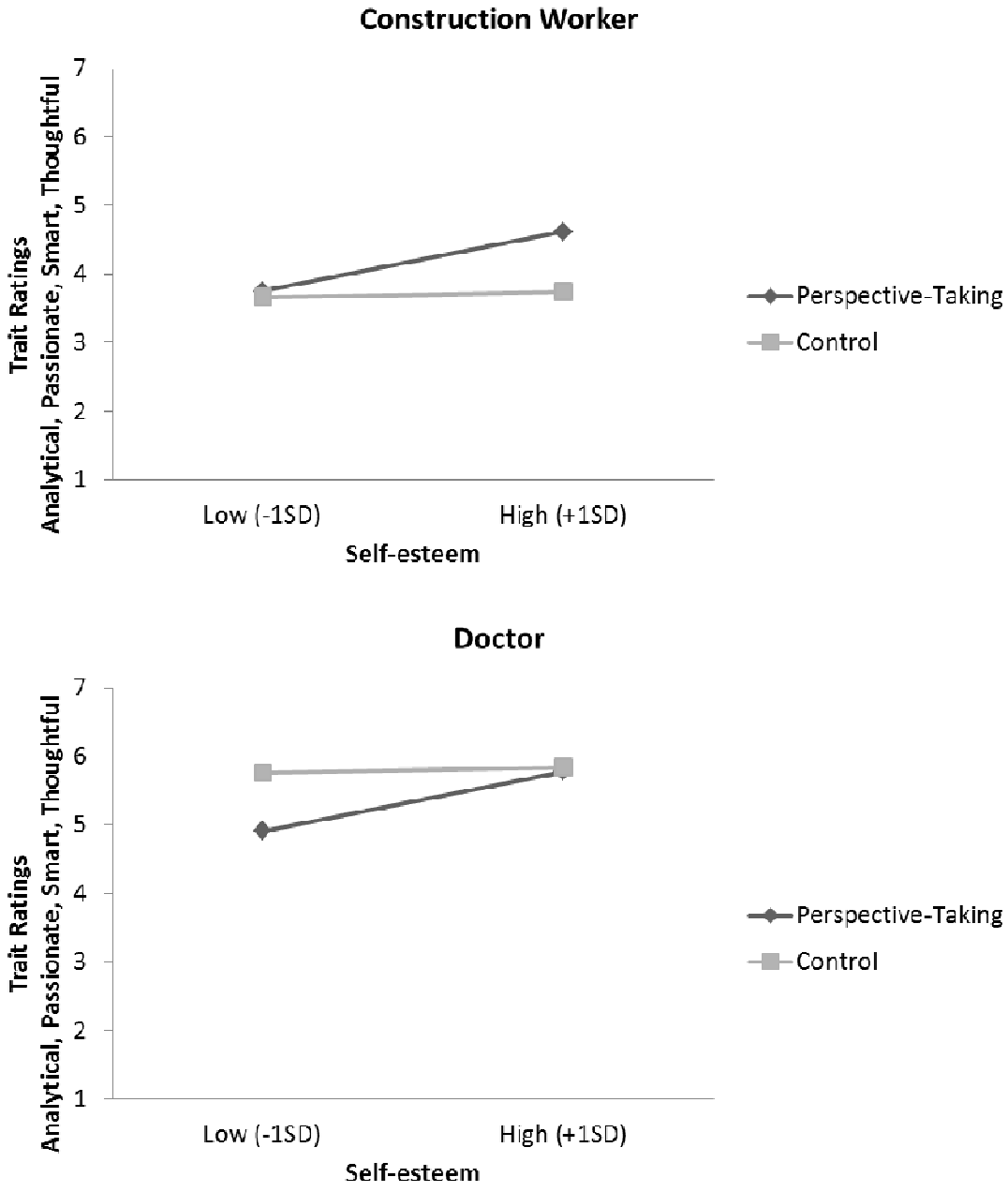


Figure 2. Trait ratings mediate the effects of perspective-taking on attitudes in Study 2. Numbers represent standardized regression coefficients; numbers in parentheses represent simultaneous regression coefficients.



*$p < .05$, ***$p < .001$

Figures 3A and 3B. Interaction effect of condition, target, and self-esteem on trait ratings in Study 3. High and low levels of self-esteem represent one standard deviation above and below the mean respectively.



Endnotes

[1] We used the terms “laborer” and “construction worker” to refer to the same target group in Studies 1 and 3 respectively. We did so because they are the commonly-used term specific to each local population.

[2] We used three criteria for excluding participants in the paper: 1) participants who failed an attention check question, 2) participants who were uncomfortable communicating in English (the language used in our studies), and 3) participants who completed the survey too quickly or too slowly, given the suggested time allotment and median completion times. Using these criteria, data from 11 participants in Study 1 were excluded because the survey was not completed within the time allotted; data from 3 participants in Study 2 were excluded because they were not comfortable communicating in English; and data from 26 participants in Study 3 were excluded because of all three criteria. The high number of exclusions in Study 3 was the result of the study being collected via Mturk (versus a laboratory setting), which in our experience, is more likely to include participants who do not pay attention or rush through the studies.